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ABSTRACT

The monograph addresses the issue of research on learning disabilities (LD) and proposes directions for research in Iowa by means of four articles, a report of a survey of needed research, and six brief response papers. The first paper, "Issues on the Identification of Learning Disabled Children" (S.W. Ehly), discusses the problems of identification and assessment and encourages data gathering by classroom teachers. The second paper, "Efficacy of Treatment in Learning Disabilities" (R. D. Tucker), provides a review of the research literature concerned with (1) placement vs. nonplacement, (2) integrated models, and (3) efficacy of specific treatments. "Effective Methods of Instruction for the Learning Disabled" (R. Owens), looks at such issues as use of assessment data to study LD subtypes and intervention effectiveness. The final paper, "Report of the Institutes for Research in Learning Disabilities" (D. Baum) notes the emphasis by the five institutes on the teaching of cognitive strategies to enhance learning and recall and the need for field testing of developed materials and strategies. The survey of research needs (J.H. Reese) reports the areas of program effectiveness and instructional effectiveness identified most frequently. Response papers support, clarify, extend, and/or provide a different perspective on the four leading articles. (DB)

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Perspectives On Research: Recent Findings And Future Directions

*A Report Of The
Iowa Research Consortium
For Learning Disabilities*

**State of Iowa
Department of Education
Bureau of Special Education**

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***Perspectives On Research:
Recent Findings And Future
Directions***

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TABLE OF CONTENTS

Consortium Membership	i
Introduction	1
Tim Hollinger, Editor	
Issues on the Identification of Learning Disabled Children	3
Stewart W. Ehly, Ph.D.	
Efficacy of Treatment in Learning Disabilities	13
Richard D. Tucker, Ed.D.	
Effective Methods of Instruction for the Learning Disabled	21
Richard Owens, Ed.D.	
Report of the Institutes for Research in Learning Disabilities	36
Dale Baum, Ed.D.	
Survey of Research Needs in Iowa	49
James H. Reese	
Addendum	58
On a Hot Summer Iowa Day	59
Barry J. Wilson, Ph.D.	
March to the Beat of a Different Drummer	64
Richard D. Tucker, Ed.D.	
Critique of Iowa LD Research Consortium Papers	67
Dale Baum, Ed.D.	
On Asking the Right Questions	70
Deb Trefz	
LD Research Priorities: A Response	74
Teresa K. Sagen, Ed.D.	
Changing Our Focus From Cure to Management	80
Carrie Z. Norton, Ph.D.	

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INTRODUCTION

Research. The word has a certain authoritative ring about it. If a new teaching concept is proposed or a new approach considered, it must all be brought before the "bar of research" to be judged as fit or unfit. However, that verdict is often clouded by questions as to the propriety of the conclusion or the quality of the procedures, and, more important, practices may be well-established and traditions strongly in place before research renders a verdict.

The field of learning disabilities is an excellent case in point. Massive internal pressures from within the schools gave rise to a movement that had grown nationwide. It wasn't as if questions weren't asked along the way, for indeed they were. The pressures and opportunities were merely too great to stop and contemplate what had been studied for "significant differences" at the .05 level or any other level.

Now that the movement is well established, the questions are being asked again with a bit more critical urgency. The answers, unfortunately, are disconcerting. Dr. David Sabatino says that "Fully 80 percent of the studies in learning disabilities have design flaws so serious as to render them useless. The services and the efforts in learning disabilities are not on solid ground ... yet."¹

On the other hand, research seldom answers as many questions as it raises. Still, the thoughtful educator must put the questions to some

¹Access '84, Iowa Federation of CEC Conference, November 4, 1984, Cedar Rapids, Iowa.

sort of objective analysis ... and that will-of-the-wisp called "empirical data" is the best we have.

This monograph seeks to address the issue of research into learning disabilities and to propose directions for research in Iowa. The paper is not definitive in its scope nor certain in its conclusions. Rather, it points in directions that should be considered by those who would analyze the past and the present and shape the future of learning disabilities in Iowa.

Contained herein are four articles relevant to research in the area of learning disabilities. They are written by people in Iowa who keep abreast of happenings in the LD field, while also remaining alert to conditions in their home state. They are as follows.

- Issues on the Identification of Learning Disabled Children by
Dr. Stewart Ehly
- Efficacy of Treatment in Learning Disabilities by Dr. Richard
Tucker
- Effective Methods of Instruction for the Learning Disabled by
Dr. Richard Owens
- Report of Institutes for Research in Learning Disabilities by
Dr. Dale Baum

Also included is a report on a survey of needed research conducted among learning disabilities staff members and school administrators in Iowa. Editorial comments, quite naturally, come from the pen of the editor.

Tim Hollinger

Editor

ISSUES ON THE IDENTIFICATION OF LEARNING DISABLED CHILDREN

Editor's Introduction

Perhaps nothing raises the hackles of anger or stirs the fighting juices within an LD teacher as to suggest there is no such thing as a learning disability. Many is the teacher who has struggled and puzzled over the student who could not learn despite the absence of low intelligence, physical disability, environmental deprivation, etc. Students with serious learning problems who also are labeled learning disabled are not figments of someone's imagination. They are indeed there, and for some reason, or reasons, "they don't learn right." The fact that they need help is strongly verified by the growth of programs to do something to meet the need. Beyond these commonly observed facts, the debate loses coherence.

How many LD children are there, really? Of course, no one can answer that question because of the vexing problem of stating what is LD as opposed to what is not LD. The word definition is related to the word definite and the opposite of definite is infinite. And infinite as it is related to dollars makes administrators and legislators very nervous. To put it another way ... there is a strong need for a definition so as to be definite about the dollars. Most readers will not quibble with the legitimacy of this concern. Therefore, the quest for a workable definition will go on, and well it ought to.

What is often unstated in this whole debate is the need to place a realistic lid on the number to be identified as LD. Most so-called "crises" in identification are little more than a reflection of this need.

Of course, no one wants to exclude the student who really needs the help; but if such cannot be defined, is there such a thing as a student being improperly excluded? Or might there be lots of students excluded who need help and who will never fall under anything but the very broadest of definitions? The LD identification problem is clouded by this larger problem. Lots of students similar to what we believe are LD students need help, but there is not yet a willingness to commit the funds to help them to the same degree.

A great deal of turmoil would be settled if there could be a straight forward declaration of how many students are to be served under this label and then, perhaps, we could be less pretentious that anyone can, as yet, define the phenomenon called LD. The field of learning disabilities is real, but it hasn't come out fully into the sunlight. Professor Ehly presents here some thoughts on the identification issue. Most important, he proposes some practical methods for obtaining relevant information in the identification process.

ISSUES ON THE IDENTIFICATION OF LEARNING DISABLED CHILDREN

Stewart W. Ehly, Associate Professor

The University of Iowa

One of the more frustrating experiences of teaching is realizing that some children cannot be adequately instructed through conventional means. When students have difficulty processing information and are not acquiring math, reading, or spelling skills, we are tempted to consider these children learning disabled and to provide them with services through special education. A major controversy for the past ten years, however, has centered around the process of identifying some children as learning disabled. The field of special education has worked to achieve consensus on the behaviors of children that could serve as parameters for a learning disability category. Research has been unable to pin down a unique cluster of characteristics of learning disabled children.

The Spring 1983 issue of the Exceptional Education Quarterly contained updates on the learning disabilities institutes funded by the federal government. The Minnesota Institute has spent five years investigating the process of identifying children as learning disabled. The findings of the institute confirm what many teachers have known for years, that learning disabilities is a broad collection of problems that children experience academically. A specific definition of learning disability, however, must be in place before identification procedures can be implemented. While the reader may think that a definition of learning disabilities has been established (such as the federal definition), variations across the states allow for many different types of children

to be placed in classes for the learning disabled. Iowa is only one of many states that recently have changed their process of classifying children as learning disabled to place them into programs.

An important issue in the definition and identification of learning disabled children is the number of children who can be served in special programs. Iowa, among many states, has been confronted with an unexpected number of children being referred for learning disabilities placement. While the Department of Education expected 3 percent of the school population to have learning disabilities, twice or three times that amount were being considered for special programs. In a few districts, 20 percent or more of the children were being considered for learning disabilities classes. Twenty percent, while representing a large number of children, does not even begin to approach some authors' proposals for the actual number of children with learning disabilities. Ysseldyke, Thurlow, Graden, Wesson, Algozzine, and Deno (1983) have noted that more than 80 percent of normal students may be classified as learning disabled by any of the current definitions.

Variations in definitions and identification procedures can lead to confusion during the assessment of children. When assessment is defined as the gathering of information to assist teaching decisions, then everyday education is clearly assessment because it involves daily gathering of information on children. The most important agent practicing assessment in schools is the teacher. Teachers realistically can consider themselves to be engaged in ongoing assessment with every child. Data that can be collected in the classroom are considered to be a more valuable source of information on the performance of children than any other form of assessment. Ysseldyke et al. (1983), in their summary on

the Minnesota Institute, argue that teacher-made tests or teacher-gathered data on children's progress can do as good a job as any form of standardized assessment in planning for instruction.

Can teacher-gathered data be of use in the education of learning disabled children? Consider the following. Research has revealed that many learning disabled children cannot be differentiated from children who have general learning problems (e.g., slow learners). Problems in information processing cannot be separated from all other problems that children experience in learning. We do not, indeed, have a better grasp in the 1980s than previously of the specific characteristics of learning disabled children. We are, however, able to recognize when children are having difficulty and to collect information on their progress in the classroom. Observing children at work in classrooms has proven to be a valuable source of information on their abilities as students. Iowa's guidelines for classifying children as learning disabled have been modified to promote the gathering of observational and teacher-collected data.

With data gathered on children, teachers can structure learning programs that are sensitive to individual needs. Special education teachers have developed a wealth of materials for their students, and educational publishers and local education agencies have made available a variety of learning materials to use with any child. Creating the best match of materials with what the teacher knows about a child's abilities requires experience with children and familiarity with learning processes.

Ensuring a child's access to specialists in remediating learning problems is influenced by formulas and placement requirements. Such requirements affect instructional decision-making and can complicate the delivery of services to learning disabled children. We cannot, however,

throw out existing formulas for funding special programs without having in place sound alternatives.

To explore such alternatives, school districts and education agencies can investigate new methods of identifying children who are having learning problems. These children could be classic learning disabled children (whatever that means) or could be children experiencing a great deal of difficulty in areas of performance covered by federal definitions of learning disabilities (e.g., reading, math). Local schools and AEAs could experiment with new methods of data gathering on children experiencing difficulty, attempting to establish the learning characteristics of such children.

Three alternatives for data gathering without reliance on standardized tests exist. Curriculum-based assessment, observation-based assessment, and interview-based assessment have been touted by a national school psychology organization as effective and valid methods of collecting information on children's performance. One example of a new method with an established track record is collection by teachers of frequent and small samples of data on children's behavior. Ysseldyke et al. (1983), represents a good starting point for information on this alternative for data gathering. The literature has established that learning disabled children, when assessed via teacher-gathered samples of behavior, do exhibit many more academic problems than do children achieving at grade level in a regular classroom program. Frequent data gathering is sensitive to changes in the classroom's curriculum and allows the teacher to document progress on a daily or a weekly basis. With the introduction of microcomputers to local schools, the task of data collection and analysis has become much easier than just a few years ago. I would urge

local schools to consider new methods of assessment by teachers and, through trial programs, establish whether such assessment does an equivalent or better job than current practices of identifying learning needs.

I would similarly encourage local schools and AEAs to examine the validity of learning disability identification procedures. If the learning disabled cannot be distinguished from other children with learning problems, the usefulness of learning disabilities as a label is limited. Local schools and AEAs could consider proposing to the Department of Education trial programs of channeling children directly to supplementary educational services when they are performing poorly in an academic area. Other children, identical to the students being placed in new referral services, could be processed into special education. Longitudinal investigation of the two groups of students would allow local schools, AEAs, and the DPI to establish whether or not current practices can be broadened to allow alternative routes to services.

Finally, I would encourage local schools and AEAs to take advantage of the materials that have been developed for children with learning problems. Individual teachers may encounter only a small array of teaching materials for children with specific learning needs. I would like to see local schools and AEAs keep records of the efficacy of individual materials for specific types of learning problems. Documentation of impact and possible calculation of cost effectiveness would help Iowa teachers in deciding on appropriate materials to use with students.

References

- Ysseldyke, J. E., Thurlow, M., Graden, J., Wesson, C., Algozzine, B. & Deno, S. (1983). Generalizations from the five years of research on assessment and decision making: The University of Minnesota Institute. Exceptional Educational Quarterly. 4(1), 75-93.

Editor's Response

It is easy to agree with the frustration of identifying students as learning disabled when the definition seems unclear and the procedures to be followed appear irrelevant. Every teacher receiving a learning disabled student into a program is anxious to know what the student really needs for instruction. Gathering information relevant to this question should certainly be the aim of every assessment procedure. The rub is how to accomplish that task while performing a rather different task.

On the one hand, those involved in assessment are trying to follow specific rules for separating students who cannot be taught within the regular system from those who can be taught by the regular program, although it may need variations at times. The basic assumption is that every student identified for special education doesn't just need help but is beyond the education of the normal system. On the other hand, receiving teachers want meaningful data. In the process of trying to draw the line for a specific disability, be it learning disabilities, mental disabilities, or behavior disorders, the interest of a receiving special education teacher somehow gets lost.

It is indeed desirable to gather data from the daily work of students, but the problem is twofold. First, will the referring teacher really do this when the teacher's interest is probably not to collect more information on the student but to be relieved of a problem? Let's make no bones about it, the problem in this case is the student. The teacher could collect information, but will the teacher make the commitment to collecting the information desired on a daily basis? The second problem is to devise a method for collecting the information that the ordinary

classroom teacher can use with little or no training. Or it might be feasible to devise a method that the ordinary classroom teacher can use after some training. Will schools gear up to using a method that requires training of regular classroom teachers for a process that an individual teacher will only use occasionally, or is there a valid data-gathering system for which the teacher needs no special training?

This editor agrees the matter should be investigated, yet at the same time the difficulties must be kept clearly in mind. A specific plan must be proposed and an excellent motivator provided.

EFFICACY OF TREATMENT IN LEARNING DISABILITIES

Editor's Introduction

Once we get past the debate on identification of LD students, if one has any energy left, the question naturally turns to impact. Has any good come of all the placements into special programs for the learning disabled? Many an educator would smile wanly at such a question for s/he is well aware of parents who want their children in just such programs and local buildings that are frequently requesting more LD personnel. This is especially true of resource programs that will accommodate students of other handicapping labels as well as LD. Ironically, the very laws intended to protect parents and students from improper placement are viewed by these parents as barriers to a desired placement. But none of this answers the question of efficacy, at least as judged by empirical data.

As Dr. Tucker points out, there are teasingly hopeful results for LD students. They are hopeful in the sense that the studies appear to indicate we're doing some good. Interestingly enough, one cannot be nearly so sanguine about the indications for non-LD students or those with IQs below 90.

EFFICACY OF TREATMENT IN LEARNING DISABILITIES

Richard D. Tucker, Supervisor

Heartland Area Education Agency 11

The search for definitive research on the efficacy of LD programming seemed an easy task at first glance. A sizeable body of literature exists but whether much is definitive is subject to question. We resolved the issue by selecting studies on the basis of recency and potential impact on practices in the field. The research has been grouped into the general categories for review; these are "Placement vs. Nonplacement," "Integrated Models," and "Efficacy of Specific Treatments."

Placement vs. Nonplacement

Research on the efficacy of placement in special education programs has been synthesized in several recent meta-analysis studies. Glass and Smith (1977) concluded that all 'pull out' programs were counter productive. They based this conclusion on a review of treatment effects from a large conglomerate of studies covering compensatory, remedial, and special education programs. From the data it appeared that being removed from regular instruction produced negative effects which exceeded any benefits derived from the special instruction received. More recently, Carlberg and Kavale (1980) analyzed fifty studies in special education and concluded that the data showed a slight negative effect for placement in programs. When these studies were analyzed by category, however, they

yielded positive effects for LD and BD students and negative effects for students with IQs below 90.

This research is the best available and it is hardly definitive. One must conclude, however, that there are real negative effects when students are pulled out of regular classes, but it is probably worth doing for LD students if their "special" instruction is well planned and presented.

Integrated Models

In the field of LD, we have long served a mixture of some pupils who are significantly and intrinsically handicapped and other pupils who are failing in a lockstep educational system. Students in the latter group comprise a sizeable portion of many LD class lists though they are only mildly handicapped. They have educational needs requiring individualization of rate of learning and more assistance of a tutorial nature than most of their peers. We have asked ourselves why it is necessary to label students handicapped and hire highly trained special education teachers in order to allow them to progress at their own pace and provide tutorial assistance as needed. The question cannot be answered except to say that our common experience is that the general education system cannot accommodate these students in its present form.

The next logical question must be: What changes need to occur to enable mildly handicapped pupils to succeed in regular classrooms? Wang (1981) and Wang and Birch (1984) address this subject in two recent articles describing the effects of the Adaptive Learning Environments Model (ALEM) on handicapped pupils totally integrated in regular classrooms. The ALEM was developed at the University of Pittsburg's

Learning Research and Development Center. Its focus is to tailor the curriculum, degree and rate of instruction, classroom structure, aide time, feedback, and reinforcement in a regular classroom to meet the individual instructional needs of a broad range of students. At the test sites, handicapped pupils mainstreamed full time into ALEM classes performed as well on tests as matched pupils in regular classes with resource room assistance. An ALEM replication site in Montevideo, Minnesota, reported similar positive results at an early stage of their project (Peterson and Peterson, 1984).

These findings offer a glimpse of the future. They show what could happen for mildly handicapped students if general education leaders are able to turn the field toward greater individualization and flexibility. There are, however, countervailing forces which could take general education in an opposite direction toward more lockstep teaching and grade-by-grade skill testing in the name of excellence and accountability.

Specific Treatments

There has been a recent flurry of nostalgia as researchers subject long-standing studies in the field of special education to meta-analysis (Kavale and Glass, 1982). The effects of perceptual motor training and psycholinguistic training were re-analyzed. The results in the case of perceptual motor training showed it to be of no benefit, agreeing with previous interpretations of the data. In the case of psycholinguistic training, the author claims more positive effects than have been generally accepted. Specifically, the meta-analysis interpretation is that four subtests of the Illinois Test of Psycholinguistic Ability showed

significantly improved scores as a result of training. Previous interpretations had contended that only two subtests would show such effects. The data still provide no relationship between improved ITPA scores and academic attainment, and the studies analyzed compare students receiving psycholinguistic training with students receiving no language intervention at all except that in the general curriculum. The most confusing finding, however, is that the greatest changes in ITPA scores did not occur in programs designing prescriptive treatments based on ITPA profiles. They occurred in programs using general language activities from the Peabody Language Development Kits. PLDK activities are used nonprescriptively with groups of students and certainly do not require ITPA profiles to implement. These findings should not fill anyone with such ITPA fervor that they would rush to order the latest model, or even search the storage room for an old one.

The most significant research on the efficacy of specific treatment comes from the Institutes for Research in Learning Disabilities (IRLD). Each of the five federally funded institutes has contributed greatly to our understanding of learning disabilities.

Four of the five institutes (Kneedler and Hallahan, 1983) identified the importance of organizational skills, problem-solving approaches, study skills, memory and recall tactics, and skills in social situations as areas where LD students and non-LD students differ significantly. These strategic differences were studied by four institutes. The Kansas project, however, went beyond exploration and definition of how LD students use deficient or inappropriate strategies for learning. They developed packets for teachers to use in teaching appropriate learning strategies (Schumaker et al., 1983). These materials were validated in

several school districts. Work was done on training LD teachers to teach strategies and involving general education teachers in helping generalize their use.

The "learning strategies" training approach is highly significant. It is more successful and better validated than previous approaches with secondary students, but more importantly, it offers an alternative to the tutorial model which many teachers use. A move away from tutoring and toward teaching students to use strategies which enable them to be independent learners would mark a major redirection in the field.

References

- Carlberg, C. & Kavale, K. (1980). The efficacy of special versus regular class placement for exceptional children: A meta-analysis. Journal of Special Education, 14, 295-309.
- Glass, G. V., & Smith, M. L. (1977). Pull out in compensatory education. Laboratory of Educational Research, University of Colorado.
- Hammill, D. D. & Larsen, S. C. (1974). The effectiveness of psycholinguistic training. Exceptional Children, 41, 5-14.
- Kavale, K. A. & Glass, G. V. (1981). Meta-analysis and the integration of research in special education. Journal of Learning Disabilities, 14, 531-538.
- Kavale, K. A. & Glass, G. V. (1982). The efficacy of special education interventions and practices: A compendium of meta-analysis findings. Focus on Exceptional Children, 4, 1-14.
- Kneedler, R. D. & Hallahan, D. P. (no date). Research in learning disabilities: Summaries of the Institutes, forward. Exceptional Education Quarterly, 4(1), VIII-IX.
- Peterson, J. & Peterson, D. (1984). Adaptive learning environments model. C.A.S.E. Newsletter, 25(4), 7.
- Schumaker, J. B., Deshler, D. D., Alley, G. R., & Warner, M. M. (1983). Toward the development of an intervention model for learning disabled adolescents: The University of Kansas Institute. Exceptional Education Quarterly, 4(1), 45-74.

Wang, M. C. (1981). Mainstreaming exceptional children: Some instructional design considerations. Elementary School Journal, 81(4), 195-221.

Wang, M. C. & Birch, J. W. (1984). Effective special education in regular classes. Exceptional Children, 50, 391-399.

Editor's Response

One of the teasingly hopeful findings reported by Dr. Tucker is the ALEM program. Could it be that such a program would also help solve the problem of identification of LD? If mildly handicapped LD students can be returned to a restructured regular program, could a definition be accepted that deals only with the intrinsically and significantly learning disabled? Would that establish a workable lid on numbers and could professionals move on to studying what we all call the "truly LD"? Teasing, isn't it?

In addition to the research proposals suggested by Dr. Tucker, this editor puts forth herewith a modest proposal. Would it not be beneficial for experts in research in LD to take the promising programs, such as ALEM and establish replication sites across the U.S.? The LD field is not floundering hopelessly with no options for helping students. The problem appears to be more one of knowing the workable options and having trained staff in place. The experts could set up the replication sites, train staff, and assist and monitor the research design. This should not be a part-time project for these experts, but a full-time assignment. It's a modest proposal.

EFFECTIVE METHODS OF INSTRUCTION FOR THE LEARNING DISABLED

Editor's Introduction

For the average teacher of LD students, the ultimate question is what works and what doesn't work in the classroom? Research findings that have no bearing on this issue are usually of little interest to them. They are the ones who will see the students tomorrow morning, and sometime this year, they will try to tell the parents what is happening. Nothing creates teacher stress and fatigue so much as the feeling that nothing good is happening.

There are a lot of useful approaches to helping the learning disabled. Somehow there is a need to involve teachers in the process of analyzing and sharing these approaches. Dr. Owens presents a number of generalizations to be borne in mind when considering instructional approaches. He then offers suggestions for involving teachers in a process of collecting and sharing useful information on instructing the learning disabled. Teachers and leaders in the LD field would do well to consider each of these proposals and narrow the possibilities down to manageable proportions. Then they must establish and organize specific projects. There is potential here to produce the kinds of results that excite teachers ... identifying and sharing effective methods.

EFFECTIVE METHODS OF INSTRUCTION FOR THE LEARNING DISABLED

Richard Owens, Assistant Director

Western Hills Area Education Agency 12

If you want to create anxiety and frustration in a fellow educator, just ask him or her to review and generalize the relationship of research findings as they pertain to instructional methods and the learning disabled. If this question is ever presented to you and if you are wise, your first and last response should be "can it really be done?" If you are not wise, you will respond with "I'll try!" By now, you, the reader, should realize this paper is being written by a very unwise educator who did commit himself to "try."

In order to carry out the assigned responsibility, the first part of the paper will cover some of the major generalizations that relate to instruction. The second part will address three specific issues. Information will be provided which hopefully will justify why further study is merited.

Generalizations Relating to Instruction of the Learning Disabled

Literally hundreds of articles have been written on the subject of instructional methodology and teaching techniques. These articles tend to be influenced by the particular training of the writer. For example, if a writer is trained in perceptual-motor or oral language theory, this influences how s/he perceives instruction. Over the past few years, some of the more influential researchers tend to have a background in cognitive and behavioral psychology. The blending of these two fields accounts for

much of the research that is being published. This influences what is in the literature relating to "instructional" methods and how to better teach the student. The data generated by researchers at the five Learning Disabilities Research Institutes (Kaufman, 1983) is an excellent example of the cognitive/behavioral blend.

1. In general, these researchers' findings suggest that it has not been demonstrated that the LD child or adult learns in a way that is fundamentally different from the way other people learn. It appears that for most LD, the only difference is that an LD person's learning is less efficient and apparently is developmentally delayed. This position is addressed in the literature by describing the LD student as an "inefficient" or "inactive" learner.
2. The LD student is delayed in the development of age-appropriate cognitive strategies by at least two or three years (Torgeesen & Glicht, 1983). Consequently, the LD student does not employ appropriate processing strategies. The teacher needs to remember that younger children can be taught to perform like older ones if they are taught to use appropriate strategies. It appears that the LD student (like younger children) can also be taught to use appropriate strategies which may lessen the limitations that they frequently demonstrate.
3. The most obvious characteristic noted by almost all the researchers is that the LD student has severe attentional difficulties and apparently lacks organizational skills (Hallahan, et al., 1983). The results of these deficits are many and are well known to teachers of the LD. The student spends less time on task, is more distractible and engages less frequently in self-directed activities.
4. At Columbia University (Connor, 1983), the researchers decided that remedial instruction should focus on the student rather than the method. The LD student was taught to use effective and efficient strategies for processing the information s/he was expected to master. The results were significant and encouraging. By using various methods of teaching organization (picture names, words, and expository text), the LD students were able to become much more efficient in recall and other learning strategies.

The researchers suggested that teachers should:

- a) use systematic instruction on how to receive directions,
- b) provide for constructive feedback,
- c) teach skills to mastery,
- d) provide time for extended practice and review, and
- e) train for transfer.

When this teaching model was used, elementary-aged LD students were able to learn very well and were able to transfer what they had learned very similar to non-LD students.

- 5. Secondary-age students reflected delay patterns similar to elementary-aged students. For example, academically they were approximately two to four grades behind when they entered junior high. These students continued to make academic growth through junior high but tended to plateau once they reached the senior high (Schumaker, et al., 1983). Deficiencies were also noted in study skills. The learning strategy approach includes modeling new skills, teaching the student how to instruct himself to sequence the skill, practicing the skills, and providing corrective feedback. The approach has proven to be very beneficial.
- 6. The research on special material supported the concept that no single remedial or developmental program had proven to be uniquely beneficial to the LD population. In fact, both materials and interventions that were effective with LD children also helped the performance of normal achieving classmates.
- 7. Results of oral reading studies suggested that LD youngsters could be effectively taught using various methods and strategies providing the teacher remembered that the LD do not focus on meaning (Bryan, et al., 1983). For example, if the teacher wants to improve word recognition, he/she must unite the word with the entire sentence. If the student understands the sentence and the sentence structure, s/he is more apt to learn the word. An excellent way to get these ideas across and to help the student see relationships within the sentence is for the student to learn to develop sentences. Start with a noun or a verb and start to build. The need to learn relationships of sentence structure impacts on oral reading.
- 8. Research findings indicated that a persistent problem in the field is the great diversity among students who are labeled LD (McKinney, 1984). Many researchers continue to believe that different subtypes of specific LD exist, yet few attempts have been made to classify subtypes

within this heterogeneous population. There is a need to classify the LD into more homogeneous grouping. If such a classification system existed, the research could be directed toward how each subtype responded to special material, different teaching approaches, etc. The results might prove that specific subtypes respond differently from what we now believe.

The conclusions that evolve from the generalizations relating to instruction are quite positive. The primary focus is how the students learn and on finding ways to develop strategies which allow the inefficient learner to become actively involved. We are now in an era where the primary focus is on the learning strategy approach, both at the elementary and secondary levels. The encouraging aspect of this approach is that the data suggest that for many LD students, "teaching them how to learn" is creating better learners. This is a welcome outcome.

Selected Issues

In this section, three issues will be discussed. It is hoped that others (teachers, AEA personnel, college and university staffs) will see the need to study these topics in more detail.

Issue #1: How can the assessment data which is collected to determine eligibility be used to study LD subtypes and the effectiveness of instructional approaches being used?

Much data is generated during the referral process. The intent is to determine the eligibility of the student and to determine an appropriate educational placement. Many teachers do not perceive this information as providing much direction as to how or what to teach.

Yet, research does suggest that when an analysis is made of this data, major subtypes of disabled readers demonstrating similar patterns can be detected. For example, Harris (1981) noted that there are at least four major subgroups that can be distinguished. Three of these appear to be significant to the LD classroom teacher. The first and most common group demonstrates a general deficiency in language skills (have normal visual and visual motor skills) and the Verbal IQ score is lower than the Performance IQ score. The language deficit is shown by limitations in listening, comprehension, vocabulary, verbal expression, grasp of sentence structure, auditory discrimination and memory, and blending ability. The second group demonstrates difficulty with visual perception and visual motor tasks. However, this group tends to have relatively normal language abilities and a Verbal IQ higher than the Performance IQ. Other researchers have found this group to have reversals, right-left confusion, and a more generalized learning deficit extending beyond reading. A third group has intact cognitive abilities and fails to show any significant deficits that would account for the reading deficit. Possibly the reading problem is due to economics, cultural and linguistics conditions of the family and neighborhood, or other environmental factors.

McKinney and Feagans (1983) reported on a preliminary study in which four subtypes of LD were determined by reviewing data obtained from the Classroom Behavior Inventory (Schaefer, et al., 1981). The data has a behavioral influence and more directly relates to the classroom. The outcomes of this approach are inconclusive at this time but do suggest that this approach may provide a means to obtain heterogeneous groupings.

Just by knowing that the possibility of specific subgroups exists does little to help the teacher teach. At this time, the relationship between

subtype and instructional methods and materials is in its preliminary stages. The preliminary findings suggest that:

1. No one has clearly demonstrated that a certain subtype responds better to any particular teaching method.
2. Many instructional programs exist for both developmental and remedial reading. None, however, have been demonstrated to be uniquely beneficial to the LD population.

There are probably many reasons the findings are inconclusive. One reason discussed previously is that LD do not constitute a homogeneous group and require the teacher to select from many instructional possibilities in order to decide on an appropriate approach. Disregarding the reasons perceived to be the cause, sufficient data has not been collected and studied to substantiate the specific relationship of subtypes and learning efficiency. The collection of information needs to be continued with the expressed purpose of determining if a positive correlation can be found between various subtypes, materials, and teaching methods.

Persons interested in researching this further might start by reviewing the literature on LD subtypes and selecting a model to study. After this, they could:

1. Analyze the existing data on students now in the LD programs as well as new students entering and make a determination to see if definite subtypes do exist. Some modifications in the data collection process may be needed. It appears, however, that most of the information is available and could easily be obtained to initiate a study.
2. Keep records of the material used as well as any special techniques that are being used. By designing a model which might include learning rate, recall, transfer, and long-term memory, the teacher may find that a specific instructional approach or that a particular set of materials is more appropriate with specific subtypes.

3. Follow-along and post-school follow-up procedures should be established. Areas to study might include the comparison of subtypes to determine if there is a specific correlation with:

- a) male-female.
- b) specific subject difficulties (Ex: reading) vs. a learning deficit evident in several areas.
- c) level of special education intervention required,
- d) length of years remediation is needed,
- e) social adjustment in post-school year,
- f) teaching through a modality approach.

Issue #2: There are many special education teachers in Iowa who are effective. How can the results of their teaching efforts be packaged into a time-efficient inservice model?

When observing several different classrooms, it becomes obvious that most special education teachers tend to use similar instructional techniques. Most special education teachers use hands-on activities, have students read to recall, summarize, and draw analogies. Most use various instructional groupings as well as varied reinforcement systems. Yet, even with all the similar activities, there apparently are some ingredients that cause students to learn more efficiently in some classrooms when compared with others.

It is the writer's opinion that two of these ingredients are:

- 1. Effective teachers believe that the student must become responsible for his/her learning. They create all kinds of unique systems to get the student involved. The teacher perceives his/her role as being more than just imparting knowledge. The teacher views the teaching process as selecting and arranging experiences so that each student understands s/he must be actively involved if learning is to take place.
- 2. Effective teachers stress instructional activities which assist the student in transferring the classroom learning to situations both in and out of school. This emphasis in teaching does have impact on retention and long-term memory and possibly it separates the most effective teachers from the least effective ones.

Teachers use many different activities to get their students to become actively responsible for learning. In general, however, these activities can be observed in at least one of three teaching approaches. The first is the teacher who uses no special materials; however, she/he has developed many techniques which cause the student to become responsible for learning. An example of this approach would be a teacher who uses a basic spelling program, but teaches the students to use self-correction as an instructional procedure. The key would be the child being responsible for correcting his own spelling under the direction of the teacher. The teacher may use modeling and imitation techniques in this process, such as stating, "You spelled the word this way; here is the correct way to spell the word." Other examples of this approach would include the techniques that frequently are discussed as cognitive behavior modification like self-instruction, and self-monitoring, as well as techniques used in Explicit Instruction (Duffy & Roehler, 1984). The second approach is when a specific learning strategy is the primary learning task. Examples of this would be the teacher who uses the Learning Strategies Curriculum and teaches the specific skills needed to learn from various materials (Schumaker, et al., 1983). In the third approach, the teacher uses special techniques that normally are not used in regular classes and most frequently require a one-on-one or small group setting. Examples of this approach are "repeated reading (Moyer, 1982)" and "neurological impress" techniques.

Teachers who use any of the approaches that stress student involvement and that relate to the 'active' student concept should make a significant impact on how the LD student learns. There is an urgent need to encourage these teachers to develop a data collection model which can be used across the state. Data could be collected using this standard format and would allow comparisons to be made. This body of data could be generated into a research design which could indicate teaching techniques that appear to be significant.

The task is really twofold. First, the model for collecting data needs to be developed and implemented. Secondly, a time-efficient model for inservice should to be developed.

Since the fall of 1984, the Iowa Department of Education has provided inservice for selected teams in the Learning Strategies Curriculum. The process used to collect data for this project could be expanded or modified, and could possibly serve as a model across the state. If the process established in this inservice effort is not appropriate, additional efforts need to be made to create a more usable format for teachers who want to record their classroom findings.

Once this format has been established, teachers who have demonstrated effective ways to assist students to become responsible learners need to be encouraged to publish and present their findings. The emphasis placed on the "responsible learning" concept is very important. We need to know if one of the main ingredients in effective teaching is "teaching students how to learn"!

Teachers teaching teachers certainly is not a new concept. The challenge, however, will be to develop a systematic communication system

to make this sharing of information time efficient. Let's assume teachers have data or are willing to collect data in a systematic manner. The question then is: What is the most effective time-efficient system to use for sharing this information? For instance, driving three hours one way to receive five or six hours of inservice certainly has limitations. Such a model does not take into consideration the reality of teachers who have families, school districts with shrinking budgets, or what is known about effective learning.

An inservice model should reflect what is known about learning. Some considerations in providing inservice are:

1. Information learned at an inservice is restricted by an individual's span of concentration. Many people believe the average span of concentration on a single subject is somewhere between 50-60 minutes per sitting.
2. Meaningful material is the easiest to learn.
3. Review is essential to retention of knowledge.
4. Time-efficiency is important to teachers.

Each AEA now has intercommunication capacities to reach other AEAs as well as the Department of Education. Now is the time to use this capability to impact instruction in Iowa.

Any model would need to be tested and modified, but hopefully it would include some of the following ideas:

1. Teachers would collect data using a standard format.
2. Time would be established in each AEA so selected teachers could present their findings (via telenet).
3. Times established would not exceed 50 minutes per session.
4. Data would be distributed prior to the session so teachers and support staff involved in the exchange could be familiar with the ideas being presented. This same data would be valuable for review.

This approach to inservice eliminates the need for excessive travel time, would be more beneficial than just having the data in writing (discussion and interchange would take place), could be scheduled frequently, allows for teacher-to-teacher exchange, and would allow for quality data to be collected which should aid in making instructional decisions.

Issue #3: How do the LD student and the non-LD student (NLD) compare in retention, regression, and recoupment?

The idea of retention, regression, and recoupment is an extremely important issue and needs to be given much study. At this time, however, it will only be covered briefly. Much of the data needed to discuss this issue intelligently is not available. As educators, we find ourselves in a very uncomfortable situation. If we are asked such questions as, "How much regression should be expected after the summer break?" and "How long will it take to recoup this loss?", we really do not have the data to substantiate our answer. It is assumed by many that the LD student retains less, regresses more, and recoups slower when compared with the non-LD student. This may or may not be true. There is very little data to support or reject the assumption.

Data is urgently needed in this area for several reasons. Two of these are:

1. Teachers need to have some idea as to what "normal" amount of regression should be expected and what is "average" time for recoupment. Once such "averages" or "normal" amounts are established, a teacher could compare what is happening in his/her classroom.
2. Parent groups are asking for extended year programs. Unless data is available to support or reject the value

of an extended year program, it is hard to support or to oppose the movement.

In 1983-84, the Iowa Department of Education implemented a project to study the question of regression and recoupment in the severely handicapped. The process included evaluating the students at the end of the school year based on his/her IEP. The students were again tested in the fall and re-teaching was begun. Data was then collected to determine the amount of time needed to recoup the prior learning. Perhaps this model could be used to study the LD. Modifications needed would be to have the objectives written more specifically and to standardize the test instruments that would be used to assess the changes.

Specific questions that could be addressed include:

1. What is the amount of regression typical of the LD student?
2. What is the amount of regression typical of a control group of non-LD?
3. What is the amount of time required to recoup lost skills for each group?
4. How do students who are in summer school programs compare with those who do not attend summer school? (Have DE-funded summer classes collect this data.)
5. Does the length of summer program impact on the outcomes?

Many variables, such as grade level and intellectual ranges would need to be controlled. Reading level should certainly be considered since at least one study found that the relationship between the amount of regression and reading level was significant (Cornelius & Semmel, 1982).

The three issues discussed are examples of areas that can be studied at the classroom level. It is hoped the challenge presented in the discussion will be taken up, and the time and effort committed to resolve some of the unanswered questions. Our primary emphasis needs to be on

the instructional process and instructional activities, and determining how instruction can be improved to enhance student learning.

References

- Bryan, T., et al. (1983). The Chicago Institute for the study of learning disabilities. Exceptional Education Quarterly, 4(1), 1-22.
- Connor, F.P. (1983). Improving school instruction for learning disabled children: The Teachers College Institute. Exceptional Education Quarterly, 4(1), 23-24.
- Cornelius, P. L. & Semmel, M. I. (1982). Effects of summer instruction on reading achievement regression of learning disabled students. Journal of Learning Disabilities, 15(7), 409-413.
- Duffy, G. & Roehler, L. (1984). Explicitness is key to reading instruction. Communication Quarterly, 6(2), 1-2.
- Hallahan, D.P., et al. (1983). Summary of research findings at the University of Virginia Learning Disabilities Research Institute. Exceptional Education Quarterly, 4(1), 95-114.
- Harris, A. J. (1982). How many kinds of reading disability are there? Journal of Learning Disabilities, 15(8), 456-460.
- Kauffman, J. M. (Ed.) (1983). Research in learning disabilities: Summaries of the Institutes. Exceptional Education Quarterly, 4(1).
- McKinney, J. D. (1984). The search for subtypes of specific learning disability. Journal of Learning Disabilities, 17(1), 43-50.
- McKinney, J. D., & Feagans, L. (1983). Adaptive classroom behavior of learning disabled students. Journal of Learning Disabilities, 16(6), 360-367.
- Moyer, S. B. (1982). Repeated reading. Journal of Learning Disabilities, 15(10), 619-623.
- Schaefer, E. S., et al. (1977). Classroom behavior inventory. Chapel Hill, NC: The Frank Porter Graham Child Development Center, University of North Carolina.
- Schumaker, J. B., et al. (1983). Towards the development of an intervention model for learning disabled adolescents: The University of Kansas Institute. Exceptional Education Quarterly, 4(1), 45-74.

Editor's Response

When one reads the generalizations regarding instruction with the learning disabled, it is both encouraging and discouraging. It is encouraging to know that LD students are not so different from other students. Some of the old tried and true methods will work with them. The key is knowing the full array of methods that can be used with students having learning problems and applying these selectively. The discouraging side is the great variation among learning disabled students causing the solutions to be complicated.

Dr. Owens suggests research into homogeneous groupings of LD students. Staff need to keep in mind, however, that this is a long-term investment. Being able to identify homogeneous groupings has not as yet shown evidence of much instructional advantage.

This editor wholeheartedly agrees with the promotion of methods for bringing good teachers together and sharing their instructional approaches. Unfortunately, there has not been a commitment toward giving teachers these kinds of opportunities. Quality inservice is still an infant industry within education, especially across district and AEA lines.

The issue of retention, regression, and recoupment is interesting. At the risk of being proven wrong, it is the inclination of this editor that this issue will not gain great momentum when compared with the other issues of the times. Interesting? Yes. High priority? Doubtful.

REPORT OF THE INSTITUTES FOR RESEARCH IN LEARNING DISABILITIES

Editor's Introduction

In 1977, five institutes were funded by the U.S. Office of Education to conduct extensive research into learning disabilities. The institutes were established out of a strongly felt need to direct federal resources toward answering pressing questions in the burgeoning LD field. Indeed, this editor recalls seeing the venerable Sam Kirk stand up at a meeting in Washington, D.C., to propose the pooling of federal research dollars toward quality projects. Prior to that, demonstration projects had been funded across the U.S. and each of these had a so-called research element. But the research was lacking in quality control and the researchers had strong motivation for being less than diligent in the search for truth. Namely, they felt they needed to show positive results to keep federal funds and gain local support. In short, their jobs were often on the line.

The institutes sought to establish orderly research designs that focused primarily on the specific work of research. The research question was to be relevant, the design strictly controlled, and the monetary resources adequate. This laudable concept produced results. Not every question has been answered. Few have been answered with certainty. But questions have been addressed in a meaningful manner and the results can be trusted. If anything definitive has resulted from the institutes, it is the apparent fact that reliable research into human subjects takes time, money, and quality control. The institutes are a step in the right direction.

It is significant that all of the previous articles have referred to the results of the institutes. This should alert the conscientious professional to be familiar with the reports on these studies. Anyone who has not availed himself or herself of the opportunity has some catching up to do. One need only to check the references listed by the writers of these papers.

REPORT OF INSTITUTES FOR RESEARCH IN LEARNING DISABILITIES

Dale Baum, Associate Professor

Iowa State University

The Virginia Institute

Research at the Virginia Institute has focused on the attention deficits (not paying attention) and the learning strategy deficits of elementary LD students. The research closely follows the work of Torgesen who characterized LD students as basically inactive learners who do not participate actively in their own learning. They are students who lack (1) a general awareness of their own thinking processes, (2) a general awareness of the demands of a given task, and (3) goal-directed motivation.

Intervention Research

The attending problems of LD students were addressed through a process of self-monitoring which the researchers termed "cognitive behavior modification." The procedure involved playing a cassette tape on which a cue (tone) had been recorded at irregular intervals. Each time the tone sounded, the student was to record whether s/he was on task or off task. The results indicated that self-recording tended to increase both on task behavior and productivity in students whose primary deficit was attentional.

Research into learning characteristics of LD students suggests that: (1) many have difficulty with the rate at which classroom instructions are presented but can understand at a slower pace, (2) to be effective, instructions must be anchored to experiences the students have

overlearned, and (3) LD students can learn to use strategies to successfully complete tasks. This line of research has tended to validate the task-analysis approach which delineates the sequential component skills to task completion, i.e., an academic strategy. Examples include:

1. Sounding out words
2. A step-by-step plan for solving long division problems
3. Multiplying 9s strategy
 - a. subtract 1 from the multiplier to obtain the ten's digit
 - b. add enough to the ten's digit to equal nine, the one's digit
 - c. $4 \times 9 = 4 - 1 = 3$ (0), $9 - 3 = 6$ Answer is 36

Personal Reaction

The research conducted at this Institute is particularly relevant to teachers. The self-monitoring research provides a technique readily available to teachers. Many teachers with whom this writer has worked have developed cassette tapes for class use and have reported dramatic increases in both on-task behavior and task completion. The technique needs to be extended into regular classes and personalized for highly distractible LD students. The procedure is described in an article by Rooney, et al., in the Journal of Learning Disabilities, June/July, 1984, pp. 360-364. Consideration could also be given to adapting the "Bug in the Ear" communication system described by Baum and Lane in Counselor Education and Supervision, 1976, pp. 309-310.

The Chicago Institute

The research of the Chicago Institute has been primarily descriptive, with the major focus on the social competence of LD children. Perhaps influenced by Bryan's early work on the peer acceptance of LD children,

the current research has attempted to describe the relationship of maladaptive personal and social behavior with poor school performance and adjustment. Additional research was conducted in the areas of (1) LD students' listening and speaking skills, (2) oral reading and comprehension skills, (3) LD children's beliefs concerning the causes of their success or failure, and (4) first impression made by LD students.

Findings

In general, LD students demonstrated an insensitivity to adapting their conversation to the needs of their listener. For example, on a delivering-bad-news-to-a-peer task such as, "You didn't get a part in the play," LD children were much less successful in employing tactful responses than non-LD children. In conversational contexts, LD children were observed to be deficit in initiating and maintaining dialogue, introducing and monitoring topics, and in conversational turn-taking.

Studies in oral reading indicated that LD children used phonic cues equally to non-LD children, but that LD children do not focus on the meaning of words and passages. Intervention research in reading comprehension revealed that instruction devoted to the meaning of words and sentences was most effective in improving comprehension.

Research concerning LD children's beliefs regarding their success or failure revealed that they feel they have little control over success or failure. Success is often seen as a matter of luck and failure as due to factors outside of their control and they, therefore, tend not to take responsibility for their failure.

Research on the negative first impression of LD students indicates that such impressions are made by judges within 30 seconds. The results

also indicate that LD children can be taught the social skills to enable them to be viewed more acceptable by others.

Personal Reaction

The interesting hypothesis emanating from this research is that linguistic deficits in LD children may be due, or related, to inadequate social skills. This hypothesis deserves additional research as current training in language, social skills, and reading is likely to be shared among possibly three persons (which would be fragmentation for the child). Perhaps what would evolve would be an integrated approach to address the three areas simultaneously.

The Minnesota Institute

The major purpose of the Minnesota Institute was to engage in systematic research on the assessment and decision-making process with the intent to improve the ways in which school personnel used assessment data to make decisions about LD students. A number of generalizations from this research follow:

1. The special education team decision-making process, as currently employed in public school settings, is at best inconsistent.
2. There is currently no defensible system for declaring students eligible for LD services.
3. The most important decision made in the entire assessment process is the decision by a regular classroom teacher to refer a student. Of those referred, 92 percent are tested, and 73 percent of those tested are declared eligible for special services.
4. Curriculum-based measurement is technically adequate for monitoring and evaluating progress on IEP goals, and student performance can be improved by applying data utilization strategies.

Implications of this research include:

1. Classroom-based interventions should be implemented at the point of referral (referral → intervention) rather than the current practice of referral → assessment → placement.
2. Time and resources could be spent more appropriately in teaching and instructing rather than in testing and labeling.
3. The research completed at this Institute raises serious questions about the validity of research which has been conducted with school-identified LD students.

Personal Reaction

The Minnesota Institute has certainly addressed the long-standing vulnerability of the profession—the objective and uniform classification of LD children. This group appears to have adequately demonstrated that psychometric measures of ability and achievement do not reliably differentiate LD children from those who are simply low achievers.

Some critics have argued that skills-based programs, behavioral objectives, and B-mod programs have peaked and that we are moving to a rediscovery of cognitive principles. The cognitive approach focuses on the child's ability to construct meaning, to take responsibility for learning, and to transfer information to long-term memory. Much of the cognitive approach will reflect a "study skills" or "how-to-learn" flavor. It is suggested that current psychometric practice fails to address the cognitive area adequately. In addition to establishing LD eligibility, the assessment procedure should be extended to include: How does the child learn? How can the child best be taught?

The Kansas Institute

The major concern of the Kansas Institute has been the problems of LD adolescents. The initial epidemiological study provided an extensive data base which described the adolescent LD population. These findings provided the basis for the learning strategies approach which was developed as an intervention model for LD adolescents. The learning strategies approach is a cognitive emphasis designed to teach students how to learn rather than to teach students specific content. As such, it represents a radical departure from the typical tutoring and/or alternate class models employed in many secondary LD programs.

Intervention studies have been conducted to study acquisition and generalization and maintenance skills of learning strategies. Additional research has employed the use of packets to teach strategies that correspond to the demands of the secondary setting. The mode of course content has been altered by employing audiotapes and marked textbooks in conjunction with strategy training. An advance organizer technique to be used by content teachers has been developed.

For the interested reader, much of the strategies approach has been presented in Alley and Deshler's book, Teaching the Learning Disabled Adolescent: Strategies and Methods, 1979, Love Publishing. An update of academic and cognitive interventions for LD adolescents is available in the Journal of Learning Disabilities, Part I, February 1984, pp. 108-117 and Part II, March 1984, pp. 170-179.

Personal Reaction

The various intervention components which have been developed and studied at this Institute represent a refreshing departure in a field which has traditionally been dominated by the concerns of programming for LD students at the elementary school level. Whether the various components developed by this Institute can be assembled as a total program is a question probably best left to the Institute itself.

Researchable questions for Iowa would include:

1. Do secondary resource teachers possess the skills to engage in learning strategies training rather than tutoring?
2. Will school administrators help create a climate whereby resource teachers and content teachers view their roles as reciprocal?
3. Who will provide the necessary inservice training (for both resource and content teachers) if the learning strategies model were to become the model of choice for Iowa?

The Columbia Institute

The Columbia Institute conducted research in five specific academic skill areas. The research was done under the hypothesis that academic failure results from an interaction between the learning characteristics (information processing) of LD students and the cognitive (thinking) demands of the instructional methods used in classrooms.

Findings

Research on immediate recall revealed enormous performance deficits in LD students. However, performance on recall tasks could be improved significantly by direct instruction in the use of study strategies.

Research in the area of arithmetic revealed that instruction based on the directive teaching model is effective in producing mastery of simple and relatively complex skills. A major factor associated with LD was the search of these students to develop or to apply age-appropriate, problem-solving strategies. For example, if $3 \times 7 = 21$, $4 \times 7 = 21 + 7 = 28$.

Research in the areas of reading and spelling focused on reducing the visual-verbal demands of the curriculum. Materials were designed with the following format: (1) unit size or number of reading words was limited, (2) the teacher modeled every word, sound, or skill the students were to learn, (3) response competition was reduced by the dropping out of mastered items, (4) all skills were taught to mastery, (5) all lessons included distributed practice and review, and (6) training for transfer was built into each unit by practicing single sounds and word parts in words not previously introduced and in nonsense words.

Comparative research between LD and non-LD students on school-like reading comprehension tasks, selecting a title, writing a summary sentence, and detecting a deviant sentence revealed no differences. It was suggested that the reading comprehension of LD students could be improved with the judicious use of techniques used with nondisabled readers.

Additional research in reading comprehension identified top-down readers who quickly decide what a passage is about and ignore subsequent details that disconfirm their hypothesis. Bottom-up readers were also identified who have difficulty seeing beyond the details to the total meaning of a passage. LD children tend to overuse the top-down approach and, consequently, misunderstand much that they read.

Personal Reaction

This Institute reports that manuals and materials have been developed and field-tested in conjunction with the various research projects. The materials should be made available to Consortium members, consultants, and teachers for field testing in Iowa.

Concluding Remarks

The work of the Institutes is, for the most part, very encouraging. It is refreshing to observe that none of the Institutes dwelled on the hapless area of perceptual deficits that besieged the profession during its first 10-15 years of existence. The major emphasis of the educational interventions has been that of cognition (thinking) and the teaching of cognitive strategies to enhance learning and recall.

Specifically, there is a need for dissemination and field testing of the materials and strategies which have been developed. In addition, there is a strong need to observe the effects of educational intervention over time. Perhaps time-in-treatment type studies could provide the conceptualization necessary to initiate and complete longitudinal studies in Iowa.

Editor's Response

Perhaps the first response of the educator when reading the institute reports is a sense of overwhelming problems. The five institutes point out a number of difficulties that have plagued and continue to plague the learning disabilities field.

According to these reports, the learning disabled student --

lacks the ability to use his thinking skills efficiently and effectively,

cannot evaluate the cognitive demands of a teaching situation,

is rarely motivated toward an instructional goal ...
(Virginia Institute).

has a social interaction problem,

has serious communication difficulties,

has negative personal beliefs about him/herself and tends to attribute failure to uncontrolled outside causes ... (Chicago Institute).

cannot be effectively categorized into a discreet group, and when he/she is identified as being learning disabled, the information is usually of little use to the specialist ... (Minnesota Institute).

will not grow out of the problem but will carry those difficulties into the secondary level where they may be compounded by added complexities ... (Kansas Institute).

will have problems in almost any skill area taught within the schools, and educators will observe

- a. poor recall of what is taught and
- b. confusion during the presentation of the skill ...
(Columbia Institute).

If this isn't enough to make the special educator throw his or her hands up in despair, it is only because that person is indeed among a special breed of people. In the midst of this delineation of difficulties, there are some rays of hope. Fortunately, not all LD students have all of the above problems. As is often pointed out, the students are a mixture of strengths and weaknesses, although the weaknesses seem to attract the greatest attention.

Another ray of hope lies within the results of the institutes. Each institute pointed out that something could be done about the various problems. When one delves into the solutions for the various problems researched within each institute, s/he indeed finds that the solution, while possible, is complex. For the average special education teacher in learning disabilities, usually working within the resource model, to apply solutions to all of these identified problems is a challenge. It is no wonder that teachers often turn in dismay from the research and choose to continue with their present methods. They care, but there is not enough time to be distracted from the present demands and to delve deeply into all of the solutions. How do we provide the incentives and rewards for teachers to pursue these answers, and how can we arrange the opportunities to begin the pursuit.

Still, to know that solutions do exist is itself a great boom to problem-solving. History is replete with examples of seemingly impossible difficulties overcome once there was assurance that it could be done. There are ways to meet the needs of the learning disabled. We need to get on with the task.

SURVEY OF RESEARCH NEEDS IN IOWA

Editor's Introduction

Recognizing the need to initiate and explore possible research programs, the Iowa Department of Education (DE) conducted a needs survey in the fall of 1983. The survey form was sent out by Mr. Jim Reese, DE Consultant for Learning Disabilities, to learning disabilities teachers, consultants, supervisors, and local building principals. The needs survey covered several topics, one of which asked the recipient to answer the question, "What do you think are the three most critical applied research questions in the LD program area?" The purpose of the survey was to determine what people in the field felt were the most pressing and practical questions within their area. The response cannot be interpreted as a majority opinion, but it is reflective of a substantial number of influential people within the field. After receipt of the research questions, they were then analyzed by Mr. Reese and Dr. Hollinger, Supervisor of Learning Disabilities, Des Moines Public Schools. Following is a report of the findings.

SURVEY OF RESEARCH NEEDS IN IOWA

James H. Reese, Consultant, Learning Disabilities

Iowa Department of Education

In the fall of 1983, the Iowa Department of Education, Bureau of Special Education, conducted a needs assessment of the learning disabilities program area. This was accomplished by a survey sent to learning disabilities and multidisabilities teachers, building principals, learning disabilities consultants, and special education administrators and supervisors. The number of individuals included on each category and the rate of return for each category is presented in Table 1.

Recognizing the need to encourage and initiate research efforts in the learning disabilities area, the Department included a question on the survey that focused on research needs. Specifically, the survey included the following item: What do you think are the three most critical applied research questions in the LD program area? Each individual was thereby given the opportunity to state three research questions either on LD in general or LD in Iowa.

Before discussing the results of the survey, several critical points need to be addressed. First, as can be seen in Table 1, the rate of return was low, 37 percent. While it may be assumed that responding individuals tended to be especially interested in the issues and needs of LD program area, the low response rate prevents establishing any definite conclusions based on a majority of the job categories surveyed. It must be noted, however, that the needs assessment procedures did not include any follow-up once the surveys were mailed.

Second, while the survey provided the opportunity to list three critical research questions, several individuals did not respond at all to the research question while others offered one or two suggestions rather than three. This point should be kept in mind when analyzing the results.

Third, the procedure for categorizing the research questions was subjective. The results were initially categorized by two people working independent of each other. Later, the two individuals jointly resolved their differences of opinion on how to categorize specific responses. Also, in several cases, decisions were based on interpretation and supposition. It should be noted, however, that whenever there was a question regarding the intent of a particular respondent's research proposal, the question was categorized as either "Non-Research" or "Miscellaneous". (See Table 2.)

Why, then, given these shortcomings, even bother reporting the results? A quick reading of Tables 2 and 3 will reveal some notable trends. Notice the consistency among the groups in terms of the types of research questions proposed.

In Table 2, if one takes a pencil and crosses out the "Non-Research" and "Miscellaneous" categories and circles the four highest numbers in each column, s/he will see a remarkable similarity.

The research categories of "Program Effectiveness/Efficacy", "Instructional Method Effectiveness", "Identification", and "Follow-Up of Graduates" are the top four categories for all subgroups. When one looks at the column headed "Total", s/he, of course, finds the same four categories at the top.

Let me add some information not reported in Table 2. The AEA supervisors of special education - those who supervise consultants and

instructional programs - are not included in the "Administrators" column. The reason is because Yours Truly conducted a telephone survey and, naturally, there was 100 percent response. However, the results are predictable as to the categories of research suggestions. As they say, three guesses and the first two don't count. The supervisors also identified questions that fell most frequently in the four categories of "Program Effectiveness/Efficacy", "Instructional Method Effectiveness", "Identification", and "Follow-Up of Graduates". Hence, all groups reported similar opinions as to what needs to be researched. Table 3 presents the same information as Table 2, only in a condensed format and ranked in order for each subgroup.

Some final interesting points. Of the 14 responses dealing with computer application, 9 of these were from teachers with 6 of the responses coming from secondary level resource teachers. Ten of the fourteen responses in the "Food, Biofeedback, Medication" research category were from teachers, five of these coming from elementary level resource teachers. The category of "Special Subject or Content Area" came close to being in the top four with teachers showing the greatest interest and principals and consultants ranking close behind.

While there are technical reasons to justify dismissing the overall findings, the consistency in the types of research questions proposed by each subgroup seems to add validity to the results. The consistency in the results across the groups suggests that the findings would be confirmed by another survey with a higher rate of return.

Table 1
SURVEY RESPONSE GROUPS AND RETURN RATES

	Sample Size	Number Returned	Return Rate
Teachers	500	161	32
Principals	200	75	37.5
Consultants	120	75	62.5
Special Education Administrators/Supervisors	75	23	31
Totals	895	334	37

Table 2

SUMMARY OF FINDINGS BY RESPONSE GROUP AND RESEARCH CATEGORY

Research Category	Response Group				Total
	Teachers	Principals	Consultants	Special Ed. Admin./Supv.*	
Non-Research	58	34	47	4	143
Program Effectiveness/Efficacy	40	11	33	13	97
Instructional Method Effectiveness	20	19	14	13	56
Identification	29	16	20	15	80
Follow-up of Graduation	18	20	19	2	59
Special Subject or Content Area	15	10	9	1	35
Characteristics	7	8	1	2	18
Etiology	7	3	2	1	13
Social-Emotional Factors	17	6	8	2	33
Computer Application	9	3	2	0	14
Grading	5	3	0	3	11
Food, Biofeedback, Medication	10	1	2	1	14
Environmental/Parental Factors	9	4	1	3	17
Miscellaneous	22	23	12	6	63

* Does not include the responses of the state's 15 AEA supervisors of special education consultants/instructional programs.

Table 3

PRIORITY OF TOP SIX RESEARCH CATEGORIES BY RESPONSE GROUP

Response Group

Rank of Priority Research Categories	Teachers	Principals	Consultants	Special Ed. Admin./Supv.
1	Non-research	Non-research	Non-research	Identification
2	Program Effectiveness	Miscellaneous	Program Effectiveness	Program Effectiveness
3	Identification	Follow-up of Graduates	Identification	Miscellaneous
4	Miscellaneous	Instructional Method Effect.	Follow-up of Graduates	Non-research
5	Instructional Method Effect.	Identification	Instructional Method Effect.	Instructional Method Effect.
6	Follow-up of Graduates	Program Effectiveness	Miscellaneous	Grading

Editor's Response

It is easy to agree with Mr. Reese's conclusion that if another survey were conducted under more stringent requirements, the results would be about the same. This editor suspects that if a group of LD staff and building principals gathered in the same room, these areas would be the topics of discussion. Do our LD services have an effective impact on students? What instructional methods are effective with the learning disabled? And to a lesser extent, what about the whole issue of identifying students as LD?

One might also conclude that these would be areas where building-level staff might be receptive to local research projects. These are areas of concern and most people work harder and cooperate better in the areas of greatest interest. Interest always tends to add to motivation.

It is more than coincidence that the four articles contained within this document deal with precisely the same issues. It is certainly instructive to realize that the four topics were assigned by Mr. Reese before the survey was compiled and analyzed. This is not merely coincidence because these educators are all in the same specialized field and from the same general locale, namely Iowa. It is instructive that the areas of concern at the local level fit closely those at the state level. And who are those carping miscreants who are always complaining that our DE is out of touch with people at the local level?

In any event, the important point is to recognize the areas where research would be beneficial and the topics of sufficient interest to gain widespread involvement. Those broad areas have been identified within this paper. They have been related to what is already known within the

field of learning disabilities. The task at this point is to encourage and coordinate efforts across the state. This could best be accomplished by some knowledgeable group being assigned this responsibility, or even assuming the responsibility, and taking the proverbial bull by the horns. Specifically, the task is to identify individuals and groups that might conduct the research, propose the topics of greatest need, establish communication across the state between such projects, and identify local situations where such research could best be conducted. Within that framework, it would also be of great value to provide some incentives for both researchers and local school personnel to proceed with the research. May we not wait too long.

ADDENDUM

The following brief, but informative papers present reactions to the monograph and, in some cases, a reaction to the discussions of the Consortium during the 1985-86 school year. As you will see, there is a healthy mix of support, clarification, extension, and different perspective from the respondents. Don't stop now, read on and expand your perspective.

"On a Hot Summer Iowa Day"

The major question that Dr. Ehly poses with respect to issues in identification is: "Can teacher-gathered data be of use to the education of learning disabled children?" (p. 6). The answer is, of course, "yes". I agree with Stewart but have some thoughts that may add to the impact of this rather modest statement.

As the Minnesota institute has documented, the identification of learning disabilities in practice has relied heavily upon the use of a number of standardized tests. These tests are typically administered by psychologists and other educational consultants and are used in most instances as the "hard" evidence in the justification for special placement under the label "learning disabled. The determination of a learning disability, however, is typically most heavily influenced by the classroom teacher and the standardized tests "validate" this determination. Said in another way, standardized tests are formally required to detect a learning disability but informally we understand that functionally this determination, in most cases, has already been made when the classroom teacher refers a student for evaluation. Furthermore, we also know that the instruments that we usually use are ill-suited for the purpose of detecting a learning disability, but they serve to legitimate the original decision by the classroom teacher. Unfortunately, these standardized test results often are reported in ways that virtually insure that the student will require special placement, since the test results are often used to describe the child's problem in jargon that is familiar only to special educators and typically intimidating to classroom teachers.

If classroom teachers are involved in and, in fact, primarily responsible for assessment, there is a good chance that they will also be involved and feel more responsible for intervention in their classrooms. Such a move to teacher-centered assessment is a radical departure from present practice yet also very consistent with the experience of learning disabilities teachers who typically conduct their own assessment in order to teach learning disabled children and report that they find little use for the information collected and reported to them by others. Thus, the power of assessment goes beyond the question of identification and has major implications for the power to develop solutions for the problems of learning disabled students. Give teachers the power to assess and define the problem and you also give them greater power and "ownership" in arriving at educational solutions.

Another implication, as Tim points out, is that classroom teachers may need some assistance in taking on these responsibilities and this would require, in many cases, some modification of the roles and responsibilities of school psychologists and other support personnel. I think that this may be beginning to happen.

Dr. Tucker and the editor are certainly on the mark when they identify learning strategies as the instructional approach that has generated a great deal of enthusiasm in recent years. I share their enthusiasm yet would also interject a note of caution.

Various treatments have been in and out of favor during the brief history of learning disabilities. One of the errors of the past has been to think of learning disabled students as in need of a certain treatment of choice when, in fact, we also keep reminding ourselves that learning disabled students are a heterogeneous group. If the characteristics that

they have in common are few, why should we expect that a single treatment or class of treatments should be efficacious?

I have a second reminder as well. It is very difficult to design research studies that adequately test the effects of various treatment methods. The fact that LD students are heterogeneous makes it difficult to identify a subject population that shares a common deficiency; teachers may or may not be well trained in the methodology or may or may not carry out the intended treatment; outcome measures may not adequately test the effects of treatments, et. cetera.

Dr. Owens' paper on "Effective Methods . . ." is a good brief summary of the current status and contains some excellent suggestions for further research that could be useful to many teachers. I am going to restrict my comments to the selected issues raised on page 24.

Issue #1: How can assessment data collected to determine eligibility be used to study LD subtypes and effectiveness of instructional approaches being used?

I would argue that most of the assessment data that is typically collected to determine eligibility cannot effectively be used for either of these purposes at the present time, and there is not much hope that this situation will change in the near future.

The data we currently collect to determine eligibility can be used for determining eligibility. Period. Exclamation point. Eligibility is a necessary and useful purpose given the constraints of resources and the competition for those resources. At the theoretical level, I think the search for subtypes will and should continue but "patterns" of scores have been detected both clinically and with the use of statistical derivations, but they are attractive phantoms that have yet to yield anything of great

substance. This situation is by no means limited to learning disabilities research but has plagued most efforts to detect so-called aptitude-treatment interactions.

Assessment data used to determine eligibility may be of some use in helping to determine effectiveness since these data provide a basis of comparison for future reference. The hidden question in this aspect of the issue is the question of what constitutes acceptable growth for the learning disabled student?

Issue #2: (Paraphrased) How can we export cheaply and effectively the skills and expertise of experienced and knowledgeable special education teachers?

I have a friend who has exclaimed on a hot summer Iowa day "I wish it would rain cold beer." In spite of the changeable and variable climate of Iowa, I have yet to see this happen although I can say that I have shared, on occasion, my friend's great hope. I would like to "clone" as many as 15 or 20 teachers among the 150 or so that I have had the privilege to observe in practice, but have yet to find the secret formulae. In this area, I think we could borrow some ideas from the effective teaching literature and try to carefully observe and record on video the kinds of things that effective and experienced teachers do that seem to contrast with the efforts of beginners. I began such an effort several years ago and did develop some taped material that I still use in classes. I personally feel that it would be important to develop materials which reinforce existing skills that many teachers have rather than trying to suggest that a "quickie" inservice is going to provide the secret seven steps that unlock recalcitrant minds.

In my opinion, the greatest obstacles to effective instruction are often organizational and attitudinal rather than a product of divergent teaching methodologies. We told teachers that LD kids were different and needed special materials and methods. Too often, they believed us. We pulled them out of classes (yes, we don't pull them out of a vacuum) and put them in the care of a "special" teacher who too often has been a person with no "special" training but who promised to get the training in three harried years. I'm not sure that we have created the kinds of climates in which good teaching can occur but have substituted a method mythology that will continue to plague us. We say that teaching LD students is a responsibility that is shared by the classroom teacher and the resource teacher but create conditions in which it may be quite difficult for these teachers to communicate effectively. In a nutshell I guess I'm saying that effectiveness should not be studied only at the level of individual teacher effectiveness but also at the level of system effectiveness.

I very much appreciated Professor Baum's succinct summaries and personal observations. I really have no comment other than to say that I think it is unfortunate that these centers were not continued in terms of funding in that I felt that they were quite productive. At the same time, with concerted effort, diligence, cooperation, and forbearance, we may be able to improve research efforts in our own state.

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"March to the Beat of a Different Drummer"

Professor Ehly has done a fine job of touching all major aspects of the identification problem and I would like to comment on the following issues:

1. The statement "a specific identification of learning disability, however, must be in place before identification procedures can be implemented" ignores the crux of the issue. We have been required to declare students eligible for special programs for years with no agreement about the nature or causes of their problems. The sad state of affairs is likely to continue.
2. The article makes an excellent point that we cannot differentiate diagnostically or by instructional needs between students with learning disabilities and students of mildly below average ability. Most of the perceptual, language, and memory processes long associated with learning disability theory are actually part and parcel of intelligence as measured by our society. The only way this distinction can be made with our present level of knowledge is to use a formula which has measured intelligence as a base or departure point. The question is whether the distinction is worth making.
3. Non-test based assessment procedures advanced by Yesseldyke and expanded by NASP take the position that the differentiation described above is a waste of time. They, along with the Lori Shepherd, suggest that students and schools would be as well served if we left learning disabled, learning problem, and slow learning children in a common pool. Diagnostic procedures would be used to determine which members of the pool need help the most and what kind of interventions would be

most effective. The advocates of this approach suggest a major transfer of time, money, and effort from testing to instruction which would enable more assistance to be provided to more students and feel the concept warrants a serious pilot study to see what kind of pupils are identified. Dare we march to the beat of a different drummer?

Dr. Owens opened his chapter with admirable candor by stating that he was researching the non-existent, i.e., teaching methods proven uniquely appropriate for learning disabled students. He concedes that research does not show LD youngsters to be fundamentally different from other students. Some learning inefficiencies and strategic differences in problem solving have been found in LD populations but not exclusively there. Research also fails to find instructional methods appropriate for learning disabled students which are not also appropriate for many other students with problems.

It seems that the LD field's gift to education will never be the definitive identification and remediation of all kinds of learning disabilities. We may offer a better gift: the ability to look at all students in terms of strengths, weaknesses, and learning styles.

This gift could best be applied to Dr. Owens' next point which is a plea to categorize LD students into four types and determine interventions for each. It would be more appropriate to look at "patterns of ability" in all students having difficulty in school and develop success strategies for the patterns, if possible.

The most valuable suggestion in the chapter was to identify effective special education teachers and analyze their methods. I feel this is especially needed for difficult instructional models such as multicategorical resource rooms and multicategorical SCI rooms. Effective

teachers in these situations are rare and should be studied and cared for as state treasures. We need to investigate as many aspects of their classrooms as possible, such as organization, planning, scheduling, verbal interactions, management techniques, climate, and interpersonal relations with their students. If some common characteristics are found we could start to sort out elements critical to effective instructions.

Dr. Baum has provided an excellent quick review of the five research institutes. He explains the topics studied and results just well enough to stimulate interest for more detailed reading. That is all the detail called for in a chapter of this scope.

My reaction is that four of the institutes set out to study different characteristics and problems of learning disabled students and all four came back with concepts of strategy training. Cognitive strategies, social behavior strategies, learning strategies for secondary students, and learning strategies for basic skills. The picture is fragmented by differences in terminology and techniques, but it is clear that commonalities could be sorted out and differences reconciled to develop a cohesive strategy training approach which teachers could apply to the variety of problems at all age levels.

I feel the institute results will be permanently diminished if left in such fragmented form.

Richard D. Tucker, Ed.D.
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Heartland Area Education Agency

Critique of Iowa LD Research

Consortium Papers

Ehly Paper

The concept of developing alternatives to standardized tests for identifying learning disabled students has a certain merit to it. However, this area of special education has long experienced a type of aversion to believing its own observations and judgments, i.e., teacher day-to-day experiences of what a student can and cannot do. Teacher judgment and concern have always been subject to validation by way of performance on standardized tests.

In order for curriculum-based-assessment (CBA), observation-based-assessment (OBA), etc. to get off the ground, a major re-education effort would need to be started with teachers and ancillary personnel. I believe this area worthy of at least a pilot attempt. Central to the effort would be the practice that services should first be delivered to the student in the classroom by itinerant specialists and removal to a resource or special class setting be done only after the in-class delivery system shall have been proven ineffective.

Tucker Paper

This review is refreshing in its attempt to explain many of the frustrations of this field as a reflection of lock-step education for students who do not fit the system. The answer may ultimately lie more in general education than in special education.

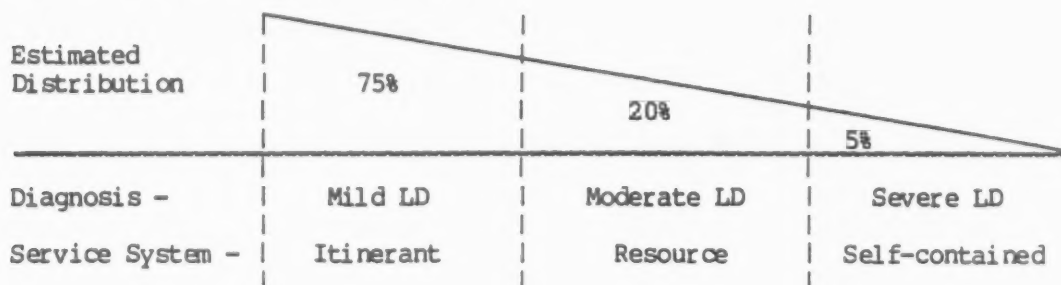
The most salient point made here is that some children do not learn how to learn in the regular school system. They need help with organizational skills, problem solving strategies, memory skills, social

skills, and study skills. Regular education does a reasonably good job of presenting students with the what to learn of school, but a poor job of how to learn when this appears to be a problem. A starting point to address this phenomenon would be the itinerant role proposed in my reaction to the Ehly paper.

Owens Paper

This very interesting paper has posed enough researchable questions to keep the profession busy for the next 20-30 years. It approaches some small waves that have been in the field a long while, but never heard very distinctly. First, in his discussion of issue #2, Dr. Owen's addresses the problem of teaching LD students responsibility for their learning and teacher responsibility for teaching transfer. These are both excellent points which point up perhaps the need to study and analyze teachers and systems of delivery as opposed to the hair-splitting efforts to identify LD subtypes.

In deference to identifying LD students from essentially a psychological (medical) model, it may be advantageous to classify or subtype LD students in terms of their need for specialized services. This, an education model, would allow the level of need to determine the type of delivery system employed:



The second point includes the efficiency of certain teachers - both regular and special. Certainly, a regular class teacher who can effectively work with an itinerant LD teacher and learn to utilize methods modeled for her/him is deserving of more compensation than one who cannot or wishes not to. I believe the same incentive plan should be built into the salaries of LD teachers.

It seems ludicrous that we employ such a sophisticated reward system in some of our special programs for students, but continue to expect teachers to give their best with a lock-step salary system.

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On Asking the Right Questions

Issues on the Identification of Learning Disabled Children

Personally, I can live with Iowa's current LD criteria. The basic elements of the definition are:

1. a severe discrepancy between ability level and achievement skills,
2. evidence that this situation is impeding acquisition of academic skills in the classroom, and
3. exclusion of other factors as primary causes of the difficulty.

I think this definition allows us to identify and serve most of the targeted "true LD" population. Certainly there are students with learning problems who do not meet these criteria, and the options for dealing with their difficulties will vary from district to district. As the editor noted, "Lots of students similar to what we believe are LD students need help, but there is not yet a willingness to commit the funds to help them to the same degree." It seems to me that this is a regular education problem rather than a special education one.

A critical issue to LD resource and self-contained teachers is the lack of criteria for determining when to staff a student out of an LD program. In the absence of staff-out criteria, staff-in criteria have been used for staffing students out of programs, i.e., if a student no longer meets all of the staff-in criteria, s/he may be staffed out of the program.

Naturally, this is counterproductive and frustrating to teachers in their efforts at remediation. If a teacher is able to make progress in remediating the student's skills, they run the risk of losing that student—not because the student has achieved at an expectancy level, but

merely because the gap between the student's ability and achievement has narrowed.

So, more important than further deliberation on the accuracy and utility of our current LD eligibility criteria would be delineation of what characteristics best indicate when a student can make a successful transition back to regular education from a special education program.

Some alternatives for gathering data without reliance on standardized tests have been suggested, including curriculum-based, observation-based, and interview-based assessment. My experience with secondary teachers is that they do gather a good amount of information on students using these approaches. My suggestion is that these approaches might prove very beneficial in helping determine when a student is ready to leave a special education program.

Efficacy of Treatment in Learning Disabilities

How effective has LD programming been for students? The SCI teachers I work with, reporting on their LD students who have been in special programs for many years, say that they are still seeing significant problems in these students' social skills and work habits. Is this because teachers have lower social and work habits expectations for LD students, or because this lack of social competence is part of the "LD syndrome" and little remediation has been directed toward this area? Without remediation of deficiencies in social competence and work habits, the LD high school graduate can expect difficulty in the competitive job market. This is an area of remediation which should be prioritized and studied, given its long term effect on the life adjustment of LD students.

Effective Methods of Instruction for the Learning Disabled

What instructional approaches are most effective with LD students? This, I think, is a significant research issue. In conducting such research, it would be convenient to make use of the assessment data which is collected to determine eligibility, but it would further be necessary to set up a plan for recording materials and instructional techniques used and quantifying desired outcome behaviors, including achievement levels and how independent the student has become as a learner. The utility of such research is dependent upon having some system for disseminating results, so that teachers can implement the suggestions when instructing LD students.

Report of Institutes for Research in Learning Disabilities

In general, the Institutes have provided us with a number of descriptors that might apply to any given student we identify as LD. Each Institute seems to have taken a specific perspective on the LD phenomenon, and their educational interventions have focused primarily on thinking and/or the teaching of cognitive strategies to enhance learning and recall. I'd like to see the learning strategies model become a model of choice for Iowa. The secondary special education teachers I work with use learning strategies and find them useful in intervention.

In response to the Minnesota Institute report of the ambiguities in the identification of LD students, I'd say we have to live with some ambiguity. Because we have no blood test or brain scan that can positively identify an LD student as physiologically different from a

general underachiever, we rely on observable data to make the best decision we can. Clearly, there are students of average or above average intelligence who need help in school because they are not achieving near their potential, and we need some way of categorizing those who most need or would benefit from structured assistance in the school setting. If we didn't have LD, we'd have to have something very much like it, and whatever it was, it would likely have similar ambiguity in its definition.

So, let's live with some ambiguity. And within the financial and other constraints under which the schools operate LD programs, let's ask instead: Do the programs work? Do the kids who most need the help get the help? Is the help appropriate and effective, and does it have a lasting impact upon the student's academic and vocational life? How can we make the programs even more effective?

Deb Trefz
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Grant Wood Area Education Agency

LD Research Priorities:

A Response

At the December meeting of the LD Research Consortium, three areas were identified as priority research areas: (1) Identification; (2) Efficacy and Program Evaluation; and (3) Instructional Approaches. Following is a discussion of each of these areas in response to our discussion at the December meeting and to the monograph prepared by Consortium members.

Identification

After much discussion at our last meeting, there appeared to be a lack of consensus on the question, "Should identification be a priority area concerning the Consortium?" Perhaps due to my own personal research priority—intervention—I readily agreed in that meeting that identification was important but not a priority. I was willing to conclude that too much emphasis has been placed on definition and identification of the learning disabled. A month wiser and after much thinking, I must revise my statements concerning identification as a priority area for the Consortium.

How can we possibly determine effective intervention for LD students and generalize research findings unless we clearly define with whom these interventions are effective. In a 1980 monograph published by the University of Kansas Research Institute was a statement by Wallace that "there is little chance that problems associated with who should teach, and what should be taught, will ever be settled if there is no agreement on who should be taught." In recent years, the Research Committee of CLD has sought to refine a set of standards which researchers should follow in

reporting research results involving the learning disabled. They too recognized the necessity of clearly defining the LD population with whom the researcher is working in order to allow for more generalizability of research results. For this reason alone, we, as a group of professionals concerned with learning disabilities, can hardly ignore identification as a priority area for research.

The Consortium must continue to focus on refining our LD definition and operationalizing this definition in addition to clarifying identification procedures. As Dr. Hollinger stated in his editorial comments, there are many students who are not identified and placed in special programs who have problems similar to students identified as LD. Regular educators continually ask why and what is the difference between these students. We, as special educators, have an obligation to answer this question. Therefore, we should continue to investigate the characteristics of those students identified as LD and those who are not but who have similar characteristics. We are left with the "burden of proof" that special placement is the only alternative for a select few. One aspect of identification that would help answer this question of proof is consideration of alternatives to special education placement that have actually been considered and implemented prior to identification for special services (e.g. tutoring and modifications by the classroom teacher).

Data is needed to determine if the alternatives were only considered or if they were actually implemented. For many students, modifications within the classroom could provide the help they need for school success, thus eliminating the need for special education services. If we find that alternatives have actually been implemented prior to referral, we can more

clearly justify a student's identification as learning disabled in need of special services. I am concerned that special education placement may be the first and only alternative considered when students are not achieving satisfactorily.

Dr. Ehly addressed another issue pertaining to identification of learning disabled students. He called for more involvement of teachers in data gathering and stated that "the most important agent practicing assessment in schools is the teacher." I agree that the teacher is an often ignored resource for obtaining classroom performance data on students. Furthermore, teachers are often ignored in the identification process once referrals are made. As a result, we are eliminating our most direct link to the students we are considering for identification. More research is needed to ascertain the actual role of the teacher in the identification decision. Are teachers of students referred actively participating in staffings as required by law? If so, what is their role?

The role of the LD teacher in the identification process is another area of concern. A frequent complain of LD teachers is that they are not involved in initial assessment and identification but are only notified of a student's placement in their classroom and a report summarizing assessment results along with an already written IEP. If this is indeed the case, we are again ignoring a valuable resource. These teachers have daily contact with LD students which provide them with specific information about characteristics that could result in more accurate identification.

Again, I do believe that the area of identification should be a priority research area for the Consortium. However, the focus of the Consortium should not be on general aspects of definition and

identification. Rather, the focus of the Consortium should be initiating and recommending research which investigates more specific aspects of existing identification procedures now in operation and their effectiveness. Questions for possible investigation are:

1. What are existing practices concerning alternatives considered prior to special education placement? Are alternatives only considered, or are they actually implemented prior to identification and placement decisions?
2. Are classroom teachers of students referred involved in identification decisions? If so, what is their involvement?
3. What is the involvement of LD teachers in the identification process?
4. Would alternative methods of assessment (i.e., classroom data) combined with standardized assessments more accurately identify LD students?
5. What are the characteristics/factors that distinguish the LD student from other low achieving students?

Efficacy and Program Evaluation

The majority of efficacy studies have been comparisons of regular class, resource room, and self-contained placements, using outcome measures such as academic achievement, self-concept, and social interaction. As Dr. Tucker indicated, there is little definitive evidence to support one placement over another. Other authors have criticized a majority of efficacy studies because of the inadequacies of the outcome measures in contributing accurate and useful information about the types of programs which are most effective in serving LD students.

A more appropriate and useful focus of research in this area is the investigation of specific placement options and evaluation of LD programs. For example, the resource room has been reported as the placement option for approximately 80 percent of LD students served nationwide. For this reason, there is need for investigation of what constitutes an effective resource program. This is particularly needed at the secondary level where LD resource teachers are often operating under a tutorial model. If this model is indeed widespread, investigations are needed to evaluate these programs to determine their effectiveness in improving the school success of LD students.

With the nationwide concern for providing transitional services to the handicapped, LD programs should also be evaluated for their effectiveness in preparing LD students for postsecondary and work environments. Research which would answer these questions and which would more clearly define the role of the resource teacher and the purpose of resource services appears to be a priority area of investigation.

Instructional Approaches

Still in our infancy, the field of learning disabilities offers a paucity of research to determine the best interventions for LD students. LD methods books and journals offer teachers little more than a hodgepodge of interventions that they might try with their LD students. As a result, a trial and error approach to selecting methods has emerged.

Additionally, the majority of intervention studies are conducted with large groups of LD students. In a field such as LD where the population displays such diverse characteristics and behaviors, large group research yields limited information for LD teachers to make decisions about individual students. Intervention studies which include small groups of

LD students or which employ a single subject design may be more appropriate. Researchers may then more carefully describe the specific characteristics of the students involved in the study. Teachers would then be better able to select an effective intervention for a student with the same or similar characteristics.

I agree with Dr. Owens' suggestion of increased involvement of teachers in investigations of interventions. In order to determine effective methods for instruction, a systematic collection of data must occur. Formative, as well as summative, evaluation is needed to determine appropriate methods for individual students. As Dr. Ehly concluded, teachers can structure learning programs that are sensitive to individual needs if data is collected in a systematic and ongoing fashion. Any research of instructional methods pursued should involve LD teachers as the primary investigator. Otherwise, we would be ignoring our most important sources of evaluative types of information (i.e. teacher journals and logs, interviews, recordings and tapes) on interventions.

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Changing Our Focus from Cure to Management

The "taking stock" tone in the Consortium document concerning current status and future direction of the field of LD is compelling. Are there really that many problems and unknowns, that much inadequate research and poor decision making? Or, have we come a long way fairly rapidly- perhaps with insufficient time to completely assimilate what we have learned and reconsider our intention and options.

We have learned a great deal about LD. We may not have a uniformly used, rigorous definition of LD, but we have functional, operational descriptions and we recognize an LD student when we see one. We don't yet know the cause(s) of LD nor can we prevent it, but we have an increasingly large and reliable set of predictive indicators as we get better at identifying those at risk. We cannot yet list discrete subtypes and specific characteristics of different syndromes of LD, but we know that it occurs in varied forms and we can recognize the typical academic and cognitive profiles and nonacademic behavioral patterns commonly seen in this diverse population. We cannot make precise prognostic statements, but we know that for most, LD is not a transient phenomenon but a persistent problem. We know that although LD is generally a mild, school-related invisible handicap, LD can affect the shape of a person's life in areas of vocational success, satisfaction, and self-esteem. We cannot cure LD or match specific learning impairments with specific treatment regimens, but we are evolving an increasing arsenal of effective strategies for maximization of the LD student's achievement.

Of all we know about LD, the notion that is the hardest to accept and which could have the greatest impact on policies and practices is the idea

of the persistence of LD difficulties. Even under the best of instructional circumstances, many LD students will make only modest academic gains. Maybe the workers in the field of LD can learn from the workers in the field of MR; in the area of MR, the goal is not to increase IQ points or to bring up to grade level, or to remediate the deficits. The goal is to optimize the function of the MR student within the limits of the diagnosis. The diagnosis of LD means persistent difficulties with learning basic academic skills despite average intellectual abilities, good emotional adjustment, intact sensory capabilities, and adequate motivation and instruction. Why then do many IEP goals for LD students state: to improve reading skills consistent with age, grade and intellectual abilities. It is the exception rather than the rule when IEP goals for LD students focus on optimizing functioning through:

- counseling the LD student to understand his/her learning capabilities and weaknesses,
- addressing those social and emotional difficulties that are often a part of the LD student's school experiences,
- adapting the instruction of the regular classroom so the LD student has a greater chance for comfort and success during that part of the school day when not involved in the resource room program,
- providing remedial instruction that not only attempts to improve deficient academic areas but also teaches those functional and "learning-to-learn" skills that most LD students do not automatically discern or intuit, as do their normal learning peers.

Although we know that our current management of LD students, through providing supplementary instruction in the resource room, has "not substantially altered" their learning problems, we continue to have a fairly narrow focus on short-term goals for academic remediation rather than a broader, more encompassing goal of preparing our LD students for the tasks of adulthood when they graduate from high school.

It may be that we have created our own monster in inventing the resource room model as the primary means of delivering support services to the LD student. Given that we know:

- the notion of matching individualized treatment strategies to remediate precise learning deficits is a myth of specificity that has not yet been proved, and
- achievement gains are generally modest as a result of resource room intervention, and
- "pull out" programs may negatively affect self-image and may not effectively deal with issues of the management of the LD student in the regular classroom and the overall adjustment of the LD student, and
- the techniques found to be effective with LD students have been shown to be equally effective with non-LD students and are, in the larger sense, most appropriately considered as regular education "theories of teaching" notions, then,

perhaps the focus of our energies needs to be redirected to an examination of possible alternatives to the resource room program.

If our concerns are in the area of the long-term management of a chronic disability rather than circumscribed academic goals, then our research efforts might switch to issues such as:

- Could LD students be better served in the regular classroom, assuming some changes in the regular education program?
- Could LD funds better be used to support enhanced regular education through salary incentives and inservice training for teachers who attempt to apply special education principles to the regular education setting, and by changing the responsibilities of special education personnel such as consultants, master teachers, special educators, strategists, school psychologists, and child study teams?
- How could we better use the untapped teaching power (i.e., peer teachers) in the regular class program to the benefit of LD students?
- How can we effectively counsel LD students and their parents about the nature of their learning problems?
- What kinds of program adjustments in the regular classroom at the secondary level would best serve the LD student?
- How can we translate data currently collected on each LD student in this state so that it could be useful to researchers?
- How would issues related to the identification and definition of LD students change if the primary purpose of diagnostic evaluations was no longer to certify eligibility for "pull out" programs but rather to help shape in-class management systems?

We have come a long way in the field of LD. Maybe at this time we need to apply what we know in combination with our available resources and

determination to redirect our focus from cure to the challenge of the long-term management of LD students.

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